

Listing of Claims:

Please amend claims 46, 49, 53, 54, 57, 59, and 60, add new claims 62 and 63, and cancel claims 40-42, 44, 45, 47, 48, and 50-52 without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-45. (Cancelled)

46. (Currently amended) A method for determining whether there is an increased risk of developing thrombosis in an individual, said method comprising:

comparing the individual's Factor V gene sequence to a normal Factor V gene sequence;
and

determining, based on the comparison, whether the individual's Factor V gene sequence is abnormal, thereby determining whether the individual has an increased risk of developing thrombosis.

47. (Cancelled)

48. (Cancelled)

49. (Currently amended) The method of claim ~~47 or 48~~ 46, wherein determining whether the individual's Factor V gene mutation is determined is abnormal is based on linkage thereof to a neutral polymorphism.

50-52. (Cancelled)

53. (Currently amended) The method of claim 46 comprising sequencing the individual's Factor V gene.

54. (Currently amended) A method for ~~identifying~~ determining an occurrence of a Factor V gene mutation associated with Activated Protein C (APC)-resistance in an individual, the method comprising the steps of:

conducting an assay on a genetic material obtained from a cell sample of the individual;
and

determining whether there is an occurrence of the mutation in the Factor V gene locus, wherein the mutation gives rise to expression of a mutated Factor V molecule associated with APC-resistance.

55. (Previously presented) The method of claim 54, wherein the mutation is determined as an abnormal absence or presence of at least one nucleic acid fragment, abnormal nucleic acid sequence, or combinations thereof, in the Factor V gene.

56. (Previously presented) The method of claim 54, wherein the mutation is determined based on linkage thereof to a neutral polymorphism in the Factor V gene.

57. (Currently amended) The method of claim 54, wherein said ~~determining step~~ assay comprises sequencing the Factor V gene.

58. (Previously presented) The method of claim 54, wherein said determining step comprises comparing a nucleic acid sequence of the Factor V gene from the individual to a normal Factor V gene.

59. (Currently amended) The method of claim 54, wherein said ~~determining step~~ assay comprises nucleic acid hybridization to a reagent specific for a normal Factor V gene.

60. (Currently amended) The method of claim 54, wherein said ~~determining step~~ assay comprises nucleic acid hybridization to a reagent specific for a Factor V gene that comprises at least one mutation associated with APC-resistance.

61. (Previously presented) The method of claim 55, wherein the mutation comprises an abnormal nucleic acid sequence in the Factor V gene.

62. (New) The method of claim 54 further comprising diagnosing APC-resistance in the individual, in addition, through a functional assay showing lack of anticoagulant activity by the individual's Factor V protein.

63. (New) The method of claim 54 further comprising diagnosing APC-resistance in the individual, in addition, through an immunoassay showing deficiency in Factor V protein with anticoagulant activity.